

CROWN

Specifications

RR 5200 Series

Narrow-Aisle
Reach Truck

RR 5200

Series



		Crown Equipment Corporation						
		RR 5210-35	RR 5210-40	RR 5220 / 25-35	RR 5220 / 25-45			
General Information	1	Manufacturer	Crown Equipment Corporation					
	2	Model	RR 5210-35	RR 5210-40	RR 5220 / 25-35	RR 5220 / 25-45		
	3	Load Capacity*	Max lb	3500	4000	3500	4500	
	4	Load Center	Fork Face to Load CG in	24	24	24	24	
	5	Power		24 Volts	24 Volts	36 Volts	36 Volts	
	6	Operator Type	Reach	Stand	Stand	Stand	Stand	
		Traction System		DC	DC	DC / AC	DC / AC	
	7	Tire Type	Load/Caster/Drive	Poly / Poly / Poly				
8	Wheels (x = driven)	Load/Power Unit	4 / 2 (1x)					
	Mast Type	High Visibility	TT					
Dimensions	9	Lift Height	in	See Mast Chart				
	10	Guard Height	in	See Mast Chart				
	13	Forks	Standard L x W x T in	36 x 4 x 1.75				
			Optional Lengths in	30, 39, 42, 45, 48				
	14	Carriage	Tilt F°/B° degree	3 / 4				
	15	Headlength**	Comp't "A"	in	47.16	na	47.16	na
			Comp't "B"	in	49.28	49.28	49.28	na
			Comp't "C"	in	51.28	51.28	51.28	52.91
			Comp't "D"	in	na	na	na	54.66
			Comp't "E"	in	na	na	na	57.28
17	Overall Collapsed Height	in	See Mast Chart					
18	Overall Extended Height	in	See Mast Chart					
20	Inside Straddle Width	In 1" increments in	34 - 50					
Performance	24	Speed Travel	Power Unit First (E/L) mph	6.3 / 6.3	6.3 / 6.3	7.2 / 7.2	7.2 / 7.2	
			Forks First (E/L) mph	5.7 / 5.7	5.7 / 5.7	5.7 / 5.7	5.7 / 5.7	
	24a	Speed Travel - Max Performance System ††	Power Unit First (E/L) mph	na	na	7.8 / 7.2	7.8 / 7.2	
			Forks First (E/L) mph	na	na	6.5 / 5.7	6.5 / 5.7	
	25	Speed Lift	Empty	fpm	65***	58***	131†	127†
			1000 lb	fpm	51***	47***	113†	110†
			2000 lb	fpm	42***	39***	99†	96†
			3000 lb	fpm	36***	34***	93†	85†
			3500 lb	fpm	33***	31***	81†	79†
			4000 lb	fpm	na	29***	na	74†
4500 lb			fpm	na	na	na	70†	
26	Speed Lower	Empty/Loaded fpm	85 / 90	85 / 90	85 / 90	85 / 90		
26a	Speed Lower - Max Performance System ††	Empty/Loaded fpm	na	na	110/90	110/90		
Chassis	37	Tires	Size - Drive/Caster in	13 x 5.5 / 8 x 4				
	38	Wheelbase (Standard Wheel)	Comp't "A"	in	52.12	na	52.12	na
			Comp't "B"	in	54.24	54.24	54.24	na
			Comp't "C"	in	56.24	56.24	56.24	59.57
			Comp't "D"	in	na	na	na	61.32
			Comp't "E"	in	na	na	na	63.95
	39	Suspension	Drive	Articulated				
		Caster	Articulated, Swivel					
42	Brakes	Drive	Elec Release / Mech Applied					
		Caster	None					
		Parking	Elec Release/Mech Applied					
Battery		Battery Removal	Both Sides					
	45	Type	Lead Acid					
	46	Min Weight/Max Amp	Comp't "A"	lb/amp	1300 / 1085	na	1300 / 620	na
			Comp't "B"	lb/amp	1600 / 1085	1600 / 1085	1600 / 775	na
			Comp't "C"	lb/amp	1880 / 1020	1880 / 1020	1880 / 930	2000 / 930
			Comp't "D"	lb/amp	na	na	na	2280 / 1085
			Comp't "E"	lb/amp	na	na	na	2600 / 1240
		Max Battery Size	Comp't "A"	in	12.19x38.38x31	na	12.19x38.38x31	na
			Comp't "B"	in	14.25x38.38x31	14.25x38.38x31	14.25x38.38x31	na
			Comp't "C"	in	16.25x38.38x31	16.25x38.38x31	16.25x38.38x31	16.25x38.38x31
Comp't "D"			in	na	na	na	18.00x38.69x31	
Comp't "E"			in	na	na	na	20.75x38.69x31	

* Contact factory. Capacity may be subject to derating at height.

** Add 2" with optional side shift.

*** Maximum lift speeds available on units with the "B" Battery Compartment.

† Maximum lift speeds available on units with the "C" Battery Compartment.

†† Maximum Performance System is optional.

RR 5200 Series

Specifications

Models RR 5210-35, 5210-40, 5220/25-35 and 5220/25-45				TT				
Mast	9	Lift Height (RR 5210-35 and -40, 270" Max)		198"	210"	240"	270"	300"
		Free Lift*		41	47	59	71	83
	10	Guard Height		89	95	95	95	95
	17	Overall Collapsed Height		89	95	107	119	131
	18	Overall Extended Height*		246	258	288	318	348
		Minimum Straddle OD		42	42	42	42	42
Weight	Truck Weight w/o Battery		Battery Compartment					
	RR 5210-35	RR 5210-40**	"A" lb	5284	5370	na	na	na
			"B" lb	5330	5416	5675	na	na
			"C" lb	5374	5460	5719	5962	na
	RR 5220/25-35		"A" lb	5362	5448	na	na	na
			"B" lb	5408	5494	5753	na	na
			"C" lb	5452	5538	5797	6040	6212
	RR 5220/25-45		"C" lb	5836	5945	6258	6548	7055
			"D" lb	5878	5987	6300	6590	7097
			"E" lb	5933	6042	6355	6645	7152

Model RR 5220/25-45				TT				
Mast	9	Lift Height		321"	341"	366"	400"	
		Free Lift*		92	101	112	124	
	10	Guard Height		95	95	95	95	
	17	Overall Collapsed Height		140	149	160	172	
	18	Overall Extended Height*		369	389	414	448	
		Minimum Straddle OD		42	49	50	53	
Weight	Truck Weight w/o Battery		Battery Compartment					
	RR 5220/25-45		"C" lb	7231	na	na	na	
			"D" lb	7273	7524	na	na	
			"E" lb	7328	7579	7795	8029	

* With load backrest.

**RR 5210-40 Not available with "A" Battery Compartment.
Above 321", 6" high load wheel standard.

Capacity

Model RR 5210-35: 3500 lb at 24" load center, 24 volt

Model RR 5210-40: 4000 lb at 24" load center, 24 volt

Model RR 5220/25-35: 3500 lb at 24" load center, 36 volt

Model RR 5220/25-45: 4500 lb at 24" load center, 36 volt

Batteries

Battery removal from left or right side of truck. Standard battery compartment rollers for extraction with mechanized equipment.

Standard Equipment

1. Crown's Access 1 2 3[®] Comprehensive System Control
2. 24 or 36 volt system
3. Work Relief Center
 - Variable side stance
 - Flexible five-point positioning
 - Back support with integral hip support
 - Arm/elbow support padding
 - Padded compartment interior walls
 - Operator console with work surface and storage
 - Lower storage compartment
 - Suspended floor
 - 270 square inch floor area
 - Entry bar
 - Non-skid rubber floor mat
 - Console light
4. "Multi-task" controller, urethane covered
5. Urethane covered steer tiller
6. Hydrostatic power steering
7. Standard display
 - Four-character message mode, three-button access
 - Access 1 2 3 diagnostics with real time troubleshooting diagnostics
 - Four hour meters
 - Fuel gauge with lift interrupt
 - PIN security
8. High visibility power unit
9. High visibility mast
10. Overhead guard
11. 48" high load backrest
12. Tilting fork carriage
13. Tandem articulating load wheels
14. Silent mast staging system
15. Quiet lift pumps
16. High speed lift cut out 12" from maximum lift
17. Crown-manufactured drive and lift motors

18. Offset articulated drive axle with 190° steer arc
19. Key switch
20. Horn
21. Emergency power disconnect
22. 350 amp battery connector
23. Large diameter battery rollers
24. Color-coded wiring
25. Third post

Optional Equipment

1. Mast lift heights to 400"
2. Performance Options
 - Enhanced
 - In addition to standard display features the Enhanced Display Panel has 16 character alphanumeric message center, six button direct access
 - Rack Height Select
 - Maximum Performance System
 - Enhanced Display
 - Rack Height Select
 - Capacity Monitor
 - Productivity Package (5220/25 only); High performance travel (7.8 mph/e - power unit first) and high speed lower (110/90 fpm)
 - Tilt Position Assist
 - Motor Brushwear and overtemp indicator (requires enhanced display)
3. Forward steering
4. Lift limit with or without override, (requires height encoder)
5. Battery retainer with interlock
6. 5th Battery Compartment Roller
7. 36" and 42" high load backrests
8. Work lights
9. Fan
10. Corrosion/freezer conditioning (freezer conditioning includes a 5/8" thick power unit skirt with extended coverage of the drive and caster tires)
11. ThermoAssist™ freezer comfort options (AC traction system and freezer conditioning required)
 - ThermoAssist™ ("C" or "D" battery compartment)
 - ThermoAssist+™ ("E" battery compartment)
12. Load wheel sizes and compounds

13. Removable outrigger tips
14. Mesh screen mast guard
15. Overhead guard mesh
16. Crown-manufactured sideshifter, 2" - 4" each way
17. Polished and tapered forks
18. Fork lengths
19. Keyless on/off switch
20. Chain slack kit
21. Drive-in rack cylinder package
22. Drive-in rack mast (4500 lb only)
23. Drive-in rack third post
24. Work Assist™ Accessories:
 - Accessory tube
 - Accessory RF mounting plate
 - Accessory RF mounting bracket
 - Accessory clamp
 - Accessory clip pad
 - Accessory hook
 - Accessory clip pad and hook
 - Accessory pocket
25. InfoLink® Ready System

Work Relief Center

Soft, rounded surfaces make compartment interior more comfortable. Streamlined exterior smooths entry/exit for the operator. A lower floor height, (9.4"), first greets the operator. A 270 square inch floor and patented suspended floorboard provide comfortable footing.

The brake pedal design allows variable side-stance positions for the operator. The operator can change positions to increase comfort and productivity.

Five-point positioning provides better control and stability, starting with the right hand on the multi-task controller and the left hand on the steer tiller. Left foot on the brake pedal and the right foot on the power-on pedal. The operator's back is naturally fitted against the wrap-around support cushion.

The multi-task controller naturally bridges Crown's current and past designs. Intuitive operation is increased, reducing the learning curve. Blending of hydraulic control functions and traction can improve productivity. Control handle activation forces are reduced. Soft grip steer tiller with hydrostatic steering reduces operator fatigue.

Operator visibility is improved with:

- Low profile power unit
- High visibility mast
- Angled mast cross bracing
- Angled overhead guard cross bars
- Variable side stance

Superior Thermal Management is the result of several unique design features: reduced heat generating components, positioning of heat generating components away from the compartment, padding to insulate the compartment from heat, and improved air paths through the truck.

Clipboard surface and console storage pockets are standard. A large storage area is located below the operator backrest.

Crown's Access 1 2 3[®] Comprehensive System Control

Crown's Integrated Control System provides unmatched truck control for all primary truck systems:

- Traction control
- Hydraulic raise/lower
- Hydraulic accessory
- Hydrostatic steering control
- Braking
- Operator Interface
- Diagnostics

Crown's patented traction system technology provides high available torque utilizing separately excited Crown-manufactured motors. The closed loop traction control system maintains top speed throughout the battery charge. The AC powered traction motor, (RR 5225), also offers closed loop performance as the battery discharges. The AC drive motor slightly increases acceleration and improved plug reversal which may be an advantage in some applications.

On ramps or when interfacing with push-back racking, the "truck hold" feature electronically brakes the truck when the handle is in neutral. Operator does not have to release the brake pedal, improving comfort and control in these applications. Selected travel speed remains constant regardless of surfaces, load weight or grades. Less throttling of control handle means better truck control and less fatigue to the operator.

Separately excited motor technology eliminates forward and reverse contractors. Regenerative motor braking helps save energy, decreases motor temperature and can help increase motor brush life on DC traction systems. Motor brushes are eliminated with AC motors.

Crown's Access 1 2 3 Diagnostics consists of three modules. Each module is extensively tested, enclosed for protection and designed to work in a variety of applications.

Access 1 2 3 is the most comprehensive fault detection system in the industry. The service technician can actively view inputs and outputs during truck operation.

Access 1 Module

This is the display panel, (Standard or Enhanced) and the first point of troubleshooting. No tools are required. Access 1 has three levels of interface:

- Operator feedback
- Full functionality of the truck while monitoring analog and digital inputs and outputs.
- Components can be "driven" with full currents and voltage eliminating inconclusive continuity guesswork.

Access 2 Module

This is the power supply for the hydraulic system including lift, all accessory functions and load sense hydrostatic steering.

Access 3 Module

Full-time management control of traction, braking and other system inputs and outputs. Access 3 simplifies the system by reducing componentry including directional and pump contactors, relays and other hard-wired components.

Information On Time consists of clearly labeling each component and providing an area map showing the component location. A Quick Reference Troubleshooting Guide is supplied with each truck showing display operation, code definitions and an overall component ID of the entire truck.

Performance Profiling

Performance Profiling can be accessed at the display to customize truck performance for specific applications or operator requirements.

Crown's Integrated Control System provides a responsive, energy efficient and reliable machine.

Access 1 2 3 diagnostics has been extensively developed to address the real world of troubleshooting and repair.

Travel

Increased travel speeds improve transport productivity especially when long distances are involved. Acceleration is increased to get the operator to the task quickly. An AC traction system can provide improved plug response and even better acceleration which may be valuable in short shuttle applications.

The optional Max Performance System is available to increase empty travel and lower speeds.

Steering

Load sense hydrostatic steering is a low-idle stand-by system which reduces energy consumption. Smooth, quiet steering control with minimal operator effort required at the steer tiller. Drive tire rotates 190° for maximum maneuverability. Crown's hydrostatic steering system is simplified with significantly fewer parts, thus reducing maintenance requirements.

Braking

A disc brake on the motor armature shaft combined with motor regenerative braking provides sure braking with fewer parts and maintenance requirements. The offset, articulated drive-unit design improves drive tire brake force and eliminates the caster brake, simplifying the system.

Suspension

The offset, articulated drive-unit design provides positive floor contact.

Load Handling

The optional Maximum Performance System (MPS) incorporates the Enhanced Display, the Productivity Package, the Capacity Monitor and the Rack Height Select feature.

The Capacity Monitor shows the approximate weight on the forks and the fork height. It will alert the operator when the truck capacity is exceeded for the fork height. It will also show how high or to which lift zone you can raise the load.

The Rack Height Select feature allows the truck to be programmed to stop at preselected heights.

As the name implies, MPS offers the maximum productivity in those high-throughput applications.

Another useful option is the Tilt Position Assist. This allows the fork tilt to stop at a preprogrammed position. If set to a fork level condition, this will allow maximum fork clearance when entering pallets and improve productivity.

Lift and lower speeds were increased for productive pallet put away and retrieval. Blending of hydraulic and traction functions, (travel, lift, and reach), is attainable. Lift, reach and sideshift are proportional for load handling accuracy.

Mast

High visibility mast design with angled cross bracing and angled overhead guard braces improve visibility for high or low stacking. Crown's patented staging cushions coupled with lowering dampers and speed reductions at maximum lift improve overall load handling control.

Rolled steel outer channel masts and inner "I" beams roll on canted, steel, anti-friction roller bearings for minimal current draw and long life. Telescoping mast sections nest to reduce truck length. Heavier mast cross bracing design increases stiffness. Above 270" lift, vertical mast reinforcement maintains maximum capacity.

Reach Mechanism

Inner arm has a one piece plate with continuous welding. Torque plate is also used to give the mechanism stiffness to resist twisting for long-lasting durability. Outer arms are designed with large heel to provide more material for stresses to be distributed evenly. Robotically welded for maximum strength.

Carriage

A hook-type carriage conforming to ITA specifications is used. Load backrest is standard.

Other Options

1. Audible travel alarm
2. Flashing lights

Safety considerations and dangers associated with audible travel alarms and flashing lights include:

- Multiple alarms and/or lights can cause confusion.
- Workers ignore the alarms and/or lights after day-in and day-out exposure.
- Operator may transfer the responsibility for "looking out" to the pedestrians.
- Annoys operators and pedestrians.

Other Options Available

Contact your local Crown dealer.

Dimensions and performance data given may vary due to manufacturing tolerances. Performance is based on an average size vehicle and is affected by weight, condition of truck, how it is equipped and the conditions of the operating area. Crown products and specifications are subject to change without notice.

You can count on Crown to build lift trucks designed for safe operation, but that's only part of the safety equation. Crown encourages safe operating practices through ongoing operator training, safety-focused supervision, maintenance and a safe working environment. Go to crown.com and view our safety section to learn more.

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Because Crown is continually improving its products, specifications are subject to change without notice.

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